

Attorney Docket No.: **BERN-0045**
Inventors: **Eric F. Bernstein**
Serial No.: **09/913,472**
Filing Date: **January 28, 2002**
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REMARKS

Claims 1-6 are pending in the instant application. Claims 1-3 and 5 have been rejected. Claims 4 and 6 have been objected to. Claims 4 and 6 have been amended. Claims 1-3 and 5 have been canceled. New claims 7 and 8 have been added in light of the cancellation of claims 3 and 5. Support for claims 7 and 8 is provided in canceled claims 3 and 5 and in the specification at page 4, lines 30-34 and page 5, lines 6-17 and 30-35. No new matter is added by these amendments. Reconsideration is respectfully requested in light of these amendments and the following remarks.

I. Rejection of Claims 1 and 2 under 35 U.S.C. § 102(b)

The rejection of claims 1 and 2 has been maintained as being anticipated by Bernstein et al. U.S. Patent 5,648,061. The Examiner suggests this anticipation is evidenced by Applicant's admission of prior art in the specification and Bernstein U.S. 5,840,734. The Examiner suggests that the '734 patent discloses that a free radical scavenger compound Tempol inhibited expression of the CAT reporter under control of a human elastin promoter in transgenic mouse fibroblasts exposed to UVB. The Examiner suggests that since there is no evidence that Tempol has

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any direct effect on repair of DNA damage, one concludes that the free radical compounds (e.g reactive oxygen species generated by UVB exposure) are at least partly responsible for induction of the elastin promoter.

Applicant respectfully disagrees with the Examiner's oversimplification of the damage occurring upon UV exposure and the suggestion that one could simply conclude that free radical compounds (e.g reactive oxygen species generated by UVB exposure) are at least partly responsible for induction of the elastin promoter based upon experiments with Tempol. As acknowledged by the Examiner Tempol also absorbs UVB and reduces the dose of UVB received by the fibroblasts. Accordingly, protection with Tempol results from a complex series of events, simple conclusions from which can not be reached without the instant application in hand.

However, in an earnest effort to advance the prosecution of this case, Applicant has canceled claims 1 and 2.

Withdrawal of this rejection under 35 U.S.C. § 102(b) is therefore respectfully requested.

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II. Rejection of Claims 1-3 and 5 under 35 U.S.C. § 102(e) and 102(b)

Claims 1-3 and 5 have been rejected under 35 U.S.C. § 102(e) as being clearly anticipated by Bernstein et al. (U.S. Patent 6,018,098). Claims 1-3 and 5 have also been rejected under 35 U.S.C. § 102(b) as being anticipated by Bernstein et al. (WO 96/37237). The Examiner suggests that prior art in the specification and Bernstein (U.S. Patent 5,840,734) provide evidence in support of this rejection. In particular, the Examiner suggests that one concludes from the teachings of the '734 patent that free radical compounds (e.g. reactive oxygen species) generated by exposure to either UVB or to UVA and 8-MOP are at least partly responsible for induction of elastin promotor. With respect to claims 3 and 5, the Examiner suggests that exposure to 8-MOP, a chemical, was required to produce the reactive oxygen species necessary for induction of the elastin promotor.

Applicant respectfully traverses this rejection.

As discussed in Section I, supra, Applicant respectfully disagrees with the Examiner's oversimplification of the damage occurring upon UV exposure and the suggestion that one could

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simply conclude that free radical compounds (e.g reactive oxygen species generated by UVB exposure) are at least partly responsible for induction of the elastin promoter based upon experiments with Tempol. Applicant believes that it is only with the instant specification in hand that the roles of generation of reactive oxygen species becomes evident.

However, in an earnest effort to advance the prosecution of this case and to clearly distinguish the present invention from prior art teachings relating to UV exposure, Applicant has amended the claims to clarify that the present invention does not involve exposing the cell cultures to UV radiation. Support for this amendment can be found throughout the specification wherein at each teaching of a means for generating reactive oxygen species there is absolutely no discussion of UV exposure, but rather incorporation of an exemplary chemical means alone into the cell culture. See specifically page 4 lines 30-34 and page 5, lines 6-17 and 30-35.

This amendment clearly distinguishes the present invention from prior art teachings such as Bernstein et al. (U.S. Patent 6,018,098) and Bernstein et al. (WO 96/37237) requiring UV exposure.

Withdrawal of these rejections under 35 U.S.C. § 102(e) and

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102(b) is therefore respectfully requested.

III. Rejection of Claims 1-3 and 5 under 35 U.S.C. § 102(f)

Claims 1-3 and 5 have been rejected under 35 U.S.C. § 102(f) as the Examiner suggests that applicant did not invent the claimed subject matter. Specifically, the Examiner suggests that Bernstein and Uitto jointly invented the subject matter in the '061 and '098 patents.

As discussed in the Section II, however, the prior art teachings of the '061 and '098 patents require exposure of the cells to UV radiation. In contrast, in the present invention chemical means for generating reactive oxygen species does not involve UV radiation. This is made clear in teachings at page 4, lines 30-34 and page 5, lines 6-17 and 30-35 as well as in the amended claims.

Accordingly, the instant claimed invention is not the same invention as that jointly invented by Bernstein and Uitto in the '061 and '098 patents. Withdrawal of this rejection under 35 U.S.C. § 102(f) is therefore respectfully requested.

IV. Double Patenting Rejection

Claims 1-3 and 5 have been rejected under the judicially created doctrine of obviousness-type double patenting as being

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unpatentable over claim 2 of each of U.S. Patent Nos. 5,648,061 and 6,018,098.

Applicant respectfully traverses this rejection.

Claim 2 of the '061 patent is drawn to a method of identifying compounds capable of inhibiting cutaneous photoaging and requires in step (b) exposing cells to UVB radiation.

Claim 2 of the '098 patent is also drawn to a method of identifying compounds capable of inhibiting cutaneous photoaging and requires in step (b) exposing cells to UVA radiation.

In contrast, claims of the instant application have been amended in accordance with teachings at page 4, lines 30-34 and page 5, lines 6-17 and 30-35 to clarify that the cells in this system or method are not exposed to UV radiation. This amendment clearly distinguishes the present invention from claim 2 of the '061 and '098 patents.

Withdrawal of this double patenting rejection is therefore respectfully requested.

V. Objection to Claims 4 and 6

Claims 4 and 6 have been acknowledged to be allowable but have been objected to as being dependent upon a rejected base claim. Accordingly, in an earnest effort to advance the

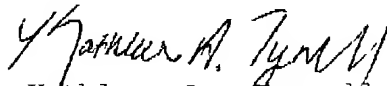
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prosecution of this case, Applicant has amended these claims to be independent. Withdrawal of this objection is therefore respectfully requested.

VI. Conclusion

Applicant believes that the foregoing comprises a full and complete response to the Office Action of record. Accordingly, favorable reconsideration and subsequent allowance of the pending claims is earnestly solicited.

Respectfully submitted,



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